

Determination of Public Land (Rangeland) Health for 64094 HOWES

The Record of Decision (ROD) for the New Mexico Standards for Public Land Health and Guidelines for Livestock Grazing Management (dated January 2001) adopted three Standards for Public Land Health. These are (1) Upland Sites Standard, (2) Biotic Communities, Including Native, Threatened, Endangered, and Special Status Species Standard and (3) Riparian Sites Standard.

The ROD also established a process for the BLM Field Offices for the implementation. Through a public participation process, the Roswell Field Office developed and adopted indicators to use in conjunction with existing monitoring data to assess these standards.

Field assessment worksheets and other available data that evaluate the local indicators were completed for this allotment. Based on the assessments, it is my determination that the public land within the Howes allotment #64094 meets the Upland Sites Standard and (2) Biotic Communities, including Native, Threatened, Endangered, and Special Status Species standard. There are no public land Riparian areas on this allotment, therefore this standard will not be addressed.

/s/ T. R. KREAGER
Assistant Field Manager

09/29/2004
Date

Standards of Public Land Health

Evaluation of 64094 HOWES Allotment

[07/27/2004]

The Roswell Field Office conducted rangeland health assessments at one study site within the Howes Allotment #64094. The assessments looked at the Soil/Site Stability, Hydrologic Function and Biotic Integrity indicators within the vicinity of each study site. Existing monitoring data was incorporated into and in support of the field assessment. The summary of each assessment is attached and shown in the following table.

Study Area or Assessment Area	UPLAND			BIOTIC			RIPARIAN		
	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet	Meets	Monitor an Indicator	Does Not Meet
64094- NORTH-E179	X			X			N/A		

Twenty-two (22) indicators for Rangeland Health were evaluated for the public land on the Howes allotment #64094. Ten (10) of these assessed soil site stability, 11 hydrologic function and 13 biotic integrity. These qualitative assessments in conjunction with quantitative information gathered from previous data collected on one trend plot location within the allotment were utilized to make rangeland health determinations. Quantitative evaluations are performed by the Roswell Field Office include some or all of the following: ground and vegetative cover and composition, production, frequency, occurrence and ecological condition. These collections which were initiated in the late 1970's/early 1980's are scheduled and conducted approximately every 5 years.

North Pasture on this allotment has been impacted by drought over the last several years and the surrounding vicinity. The majority of this pasture is a Loamy SD-3 ecological site on 1,440 acres/655 hectares on an Upton-Atoka soil association. No livestock were observed in this pasture at the time of assessment. This association occurs on uplands west of the Pecos River with 0-5 percent slopes. The majority of indicators assessed rated None to Slight to Slight to Moderate. All soil and hydrologic attributes fell within the normal range of variability with very minor deviations.

Minor erosion patterns exist in regards to water flow patterns but remain stable and short. The site is situated just south of a gravel pit along a county road north of highway 13. Although the road crosses through the pasture, no influences from this or the gravel pit can be observed. The distance is great enough as to create a buffer. Puddling is evident on a few areas within the site and helps infiltration rates and reduces runoff. Functional/structural groups rate Slight to Moderate with only the grama (*Bouteloua* spp.) species missing. As with the majority of sites evaluated this year, the dry conditions have impacted the grama grasses the most. There is a generous mulch layer existing which suggests that the late spring and recent summer rainfall events have generated some forb

and grass production. The period between these two however suggests the possibly of die-back of forb and grass creating this litter. Croton (Croton spp.) and desert holly (Perezia nana) are the major forbs onsite. Prickly pear (Opuntia spp.) and yucca (Yucca spp) are also observed but in smaller amounts. Annual production rates Moderate as approximately 1/3 of the potential and 1/2 of the long-term average of 420 lbs/ac or kg/ha is presently estimated. Both physical and biological crusts are evident and remain intact with some minor breaks in continuity. This indicator also rated Slight to Moderate. Wildlife species frequenting the allotment are pronghorn (Antilocapra americana), black-tailed jackrabbit (Lepus californicus), cottontail (Sylvilagus auduboni) and a variety of burrowing rodents.

Hydrology - Pasture North - The rills, water flow patterns, pedestals and/or terracettes, bareground, gullies, wind scoured, blowouts, and or deposition areas, litter movement, soil surface resistance to erosion, soil surface loss or degradation, plant community composition and distribution relative to infiltration and runoff, compaction layer, litter amount, and physical/chemical/biological crusts indicators have rated as none to slight or slight to moderate. Sand and gravel deposits of Quaternary alluvial and terrace gravel outcrop in the area.

Wildlife/Biotic - Evaluation of the integrity of the biotic community considered several indicators as attribute indices for the area of interest. Biotic factors are interrelated with several others, including soil/site stability, hydrologic function, and vegetation. Several indicators are singularly biotic and address the vegetative aspect of the ecological site description such as functional/structural groups as discussed above. One biotic indicator fell within the Moderate rating of the worksheet, annual production. This is to be expected given the past climatic conditions and will improve with continued precipitation. In addition to the standard worksheet biotic factors, four specific wildlife indicators and descriptors are included in this evaluation. Wildlife habitat and population indicators rate slight to moderate, primarily for pronghorn and a variety of non-game terrestrial species. The composition of vegetation reflects current climatic conditions (drought). Range site production and cover of a variety of preferred plant species for wildlife such as forbs and woody browse species and the availability of seed for food and regeneration, is moderated by climatic and land use. With respect to Special Status Species, none are known to occur in the area of interest at this time and the Habitat and Population indicators therefore rate None to Slight.

It is the professional opinion of the Assessment Team that the public land within the Howes allotment meets the Upland and Biotic standards. There are no Riparian issues present, therefore this standard was not addressed. Refer to site notes and recommendations for further information regarding this assessment.

Recommendations: Regular scheduled monitoring should continue on this site. A very faded two-track was described to access this site and perhaps the gradual vegetating over through time has healed over this short stretch of road and more or less disguised it. Traffic will continue however to the gravel pit on the county road that is well maintained.

Perhaps walking rather than driving to the study site in the future from the county road would further the healing process, reducing surface disturbance.

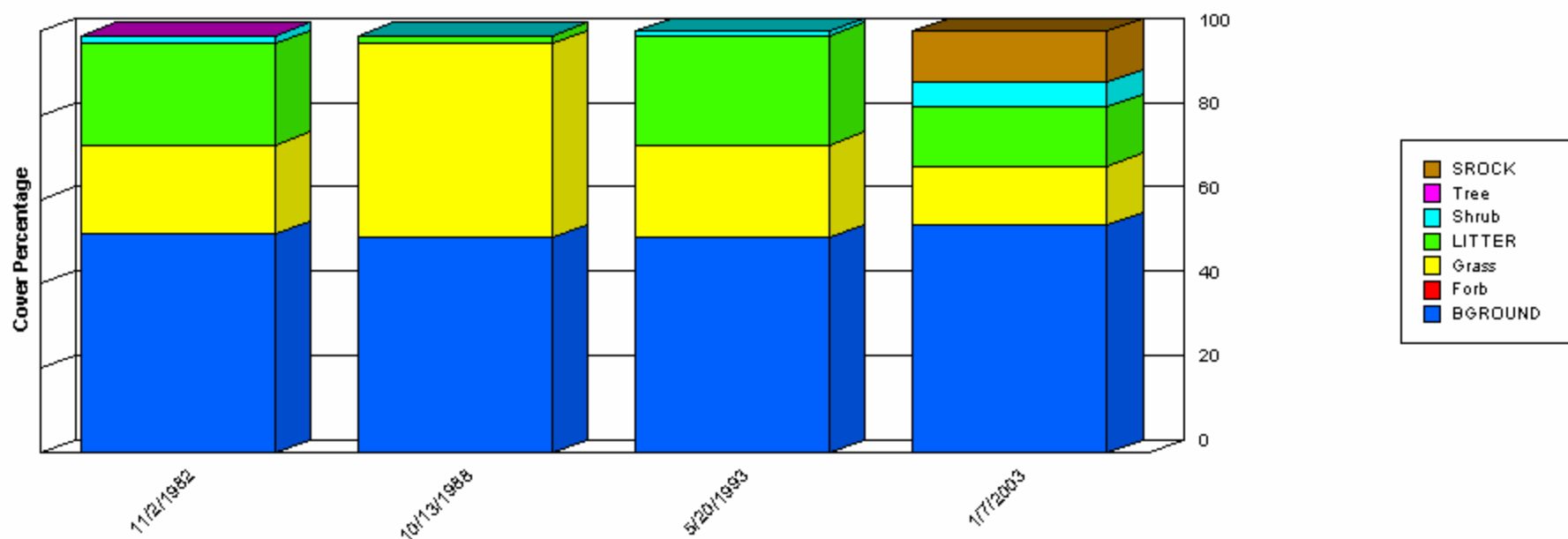
RFOs Upland and Biotic Standard Assessment Summary Worksheet						
SITE 64094-NORTH-E179						
Legal Land Desc	SENW 20 0140S 0250E Meridian 23		Acreage		1440	
Ecosite	042CY007NM LOAMY SD-3		Photo Taken		Y	
Watershed	13060007080 HAGERMAN					
Observers	NAVARRO/MCGEE		Observation Date		07/27/2004	
County Soil Survey	NM666 CHAVES SOUTH		Soil Var/Taxad			
Soil Map Unit	UA		Soil Taxon Name		UPTON	
Texture Class	NM666 L		Soil Phase		UPTON-ATOKA	
Texture Modifier	NM666 GRAVELLY LOAM					
Observed Avg Annual Precipitation			Observed Avg Growing Season Precipitation			
NOAA Annual Precipitation	10.42		NOAA Growing Season Precipitation		7.68	
NOAA Avg Annual Precipitation	12.52		NOAA Avg Growing Season Precipitation		10.24	
Disturbances and Animal Use:	No disturbances at this time except for a gravel pit but is buffered by a few hundred meters of range. Pronghorn, muledeer and lagomorphs frequent the area. No livestock were observed at the time of assessment.					
Part 2. Attributes and Indicators						
		Departure from Ecological Site Description/Ecological Reference Areas				
Attribute	Indicators	Extreme	Moderate to Extreme	Moderate	Slight to Moderate	None to Slight
S H	Rills					X
Comments :						
S H	Water Flow Patterns				X	
Comments :	Very minor erosion					

S H	Pedestals and/or Terracettes				X	
Comments :						
S H	Bare Ground				X	
Comments :	50% falls within the range.					
S H	Gullies					X
Comments :						
S	Wind-scoured, Blowouts, and/or Deposition Areas				X	
Comments :	Infrequent and few.					
H	Litter Movement				X	
Comments :						
S H B	Soil Surface Resistance to Erosion				X	
Comments :						
S H B	Soil Surface Loss or Degradation				X	
Comments :						
H	Plant Community Composition and Distribution Relative to Infiltration and Runoff				X	
Comments :	Puddling evident. Infiltration rates are only minorly affected.					
S H B	Compaction Layer					X
Comments :						
B	Functional/Structural Groups				X	
Comments :	Most everything exists except the grama grasses. Shrub components historically are not an issue.					
B	Plant Mortality/Decadence				X	
Comments :						

H B	Litter Amount				X	
Comments :	Now estimated at 20%. Falls just within range.					
B	Annual Production			X		
Comments :	Now the estimate is 1/2 of the potential at 200-250 lbs/ac or kg/ha.					
B	Invasive Plants				X	
Comments :	Creosote is less than scattered.					
B	Reproductive Capability of Perennial Plants				X	
Comments :						
S	Physical/Chemical/Biological Crusts				X	
Comments :	Both physical and biological crusts are observed with some continuity but some breaks also.					
B	Wildlife Habitat				X	
Comments :						
B	Wildlife Populations				X	
Comments :						
B	Special Status Species Habitat					X
Comments :	None known to occur.					
B	Special Status Species Populations					X
Comments :	None known to occur.					
Part 3. Summary						
A. Indicator Summary - Each of the indicators are associated with one or more of the attributes below. An indicator is placed in a category (columns) above and summed for each of the Standard Attributes.						
Standard Attribute		Extreme	Moderate to	Moderate	Slight to Moderate	None to

			Extreme		e	Slight
S	Soil	0	0	0	7	3
H	Hydrologic	0	0	0	8	3
B	Biotic	0	0	1	9	3
<p>B. Attribute Summary. In this table, the Extreme and Extreme to Moderate columns in the table above are merged for the <i>Does not Meet</i> column, Moderate becomes <i>May Need More Info</i>, and Slight to Moderate and None to Slight merge to form the <i>Meets</i> columns. Values from the table are summarized below. Space is provided for rationale of the determination. This space should most certainly be used when the determination by the ID team conflicts with the summarized values. Provide the sources of information that lead to the determination. X out the appropriate box for each attribute to denote final agreed upon determination by the ID team.</p>						
Attribute	Rationale		Does Not Meet		May Need More Info	Meets
Soil			0		0	10
Hydrologic			0		0	11
Biotic			0		1	12
<p>Site Notes: The site is a permanent study just about one mile north of highway 13. A gravel pit is situated just north of the study but does not compromise the site. This North Pasture is frequented by pronghorn, muledeer and lagomorphs. The two-track leading to this study site has faded to a well vegetated over hard to locate path.</p>						

Ground Cover Trends



	11/2/1982	10/13/1988	5/20/1993	1/7/2003
BGROUND	52.00	51.00	51.00	54.00
Forb	0.00	0.00	0.00	0.00
Grass	21.00	46.00	22.00	14.00
LITTER	24.00	2.00	26.00	14.00
Shrub	2.00	0.00	1.00	6.00
SROCK	0.00	0.00	0.00	12.00
Tree	0.00	0.00	0.00	0.00

	11/2/1982	10/13/1988	5/20/1993	1/7/2003
Total	99.00	99.00	100.00	100.00

Report Parameters

SITE NAME LIKE 64094-NORTH-E179
 ON/AFTER 10/01/1982
 ON/BEFORE 09/30/2003

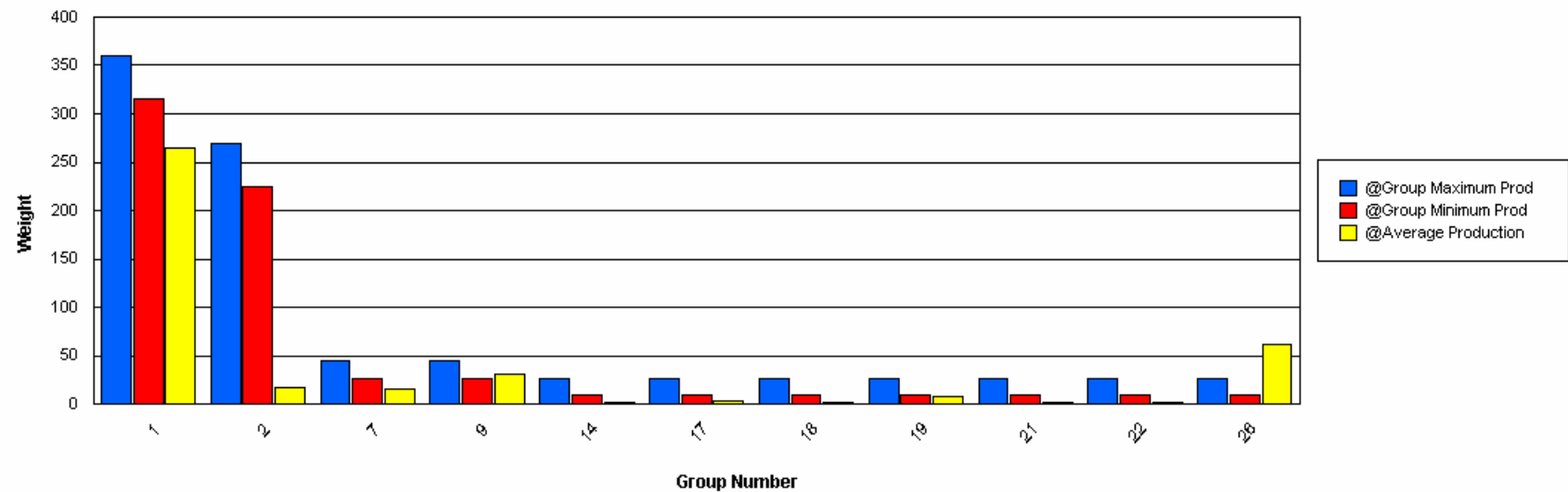
Functional / Structural Groups

Report Parameters

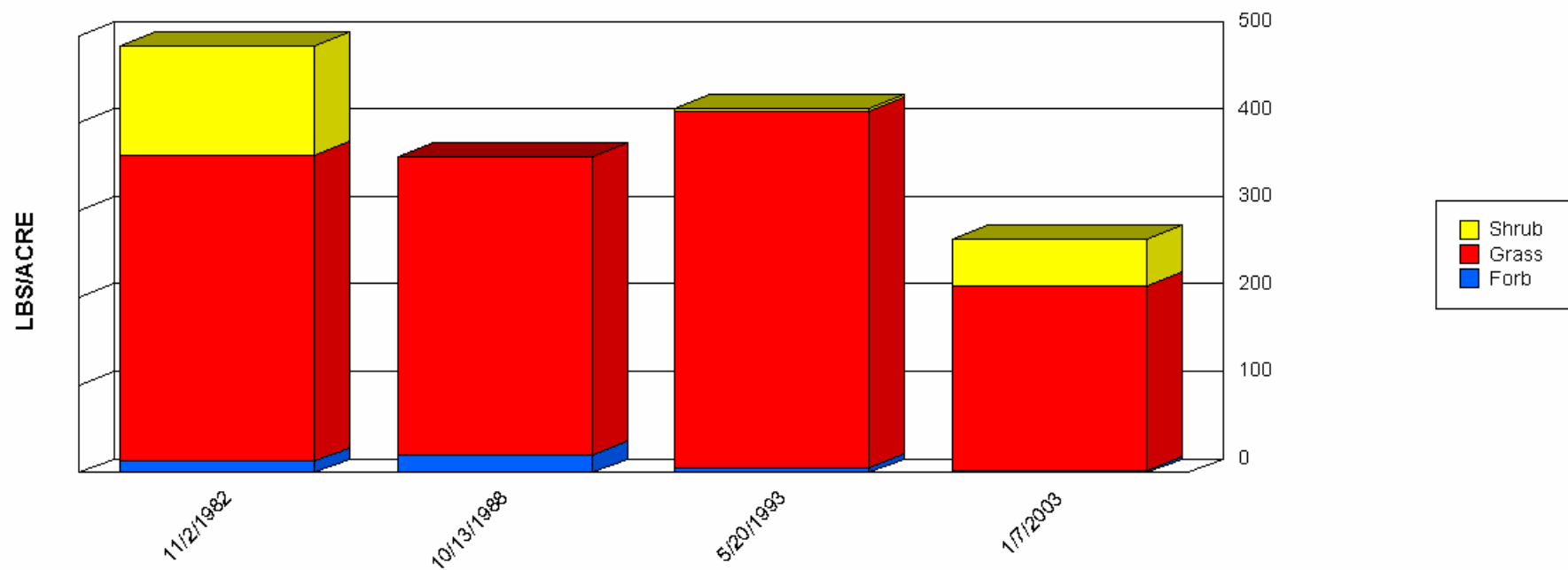
SITE NAME LIKE 64094-NORTH-E179
 ON/AFTER 10/01/1982
 ON/BEFORE 09/30/2003
 MIN LBS TO GRAPH 1
 SELECTED ECOSITE 042CY007NM

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
1	Grass	HIMU2	315	360	150.00	307.00	201.00	62.39
1	Grass	SCBR2	315	360	10.00	126.00	63.25	42.22
2	Grass	BOER4	225	270	0.00	59.00	16.75	24.49
7	Grass	ARIST	27	45	0.00	22.00	10.67	8.99
7	Grass	SPCR	27	45	2.00	7.00	4.50	2.50
9	Grass	MUAR	27	45	0.00	81.00	28.75	31.47
9	Grass	MUAR2	27	45	0.00	3.00	2.00	1.41
14	Grass	TRMU	9	27	0.00	5.00	2.33	2.05
17	Grass	ERPU8	9	27	0.00	9.00	3.67	3.86
18	Forb	SPHAE	9	27	0.00	2.00	1.33	0.94
19	Forb	CROTO	9	27	1.00	11.00	5.00	4.32
19	Forb	PENA	9	27	0.00	7.00	2.67	3.09
21	Forb	ERTE13	9	27	0.00	2.00	1.00	1.00
21	Forb	HOGL2	9	27	0.00	1.00	0.50	0.50
22	Forb	AAFF	9	27	1.00	2.00	1.50	0.50
24	Forb	TRAM9	9	27	0.00	0.00	0.00	0.00
26	Shrub	GUSA2	9	27	4.00	126.00	61.33	50.08
26	Shrub	OPUNT	9	27	0.00	0.00	0.00	0.00

Group	Plant Type	Species	Low Wt Allowed	High Wt Allowed	Minimum	Maximum	Average	STDEV
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Production Lbs/Acre Trends



	11/2/1982	10/13/1988	5/20/1993	1/7/2003
Forb	13.00	21.00	5.00	3.00
Grass	350.00	340.00	408.00	211.00
Shrub	126.00	0.00	4.00	54.00
Total	489.00	361.00	417.00	268.00

Report Parameters

SITE NAME LIKE 64094-NORTH-E179
 ON/AFTER 10/01/1982
 ON/BEFORE 09/30/2003



Rangeland Health Assessment Ecological Sites



Allotment 64094

T14S.R24E



T14S.R25E

0.6 0 0.6 Miles



Public



Study Plots



State



Private



Study Locations



Ecological Sites



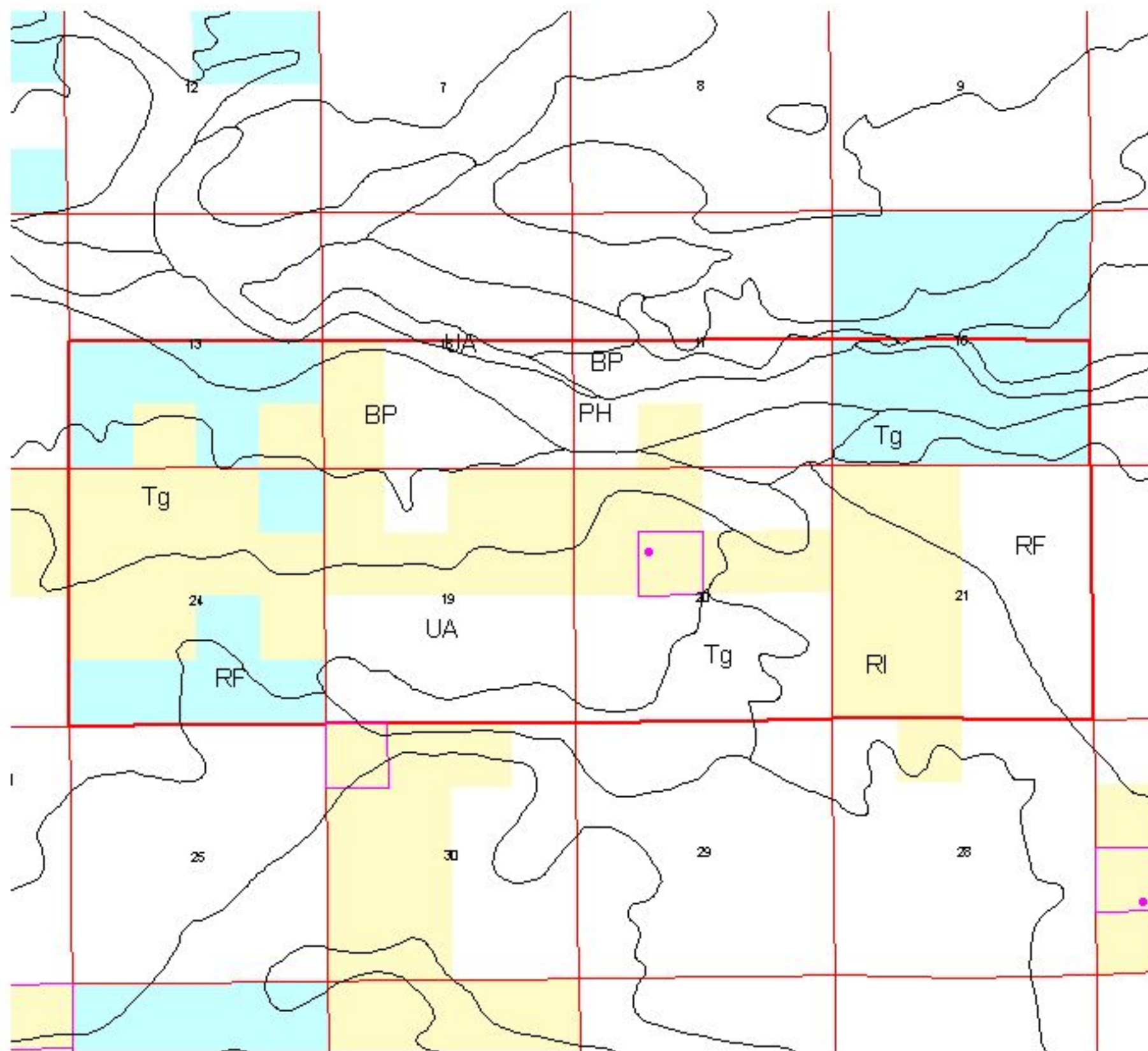
Allotment Boundary

Produced by the Roswell Field Office
GIS Intern on July 26, 2003.

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for any purpose other than the purpose for which they were collected. No warranty is made by BLM, BLM, BLM, or any other agency, for any purpose other than the purpose for which they were collected. This document is not a legal document.



T14.R24E



T14S.R25E



Public



Study Plots



State



Private



Study Locations



Soil Mapping Units



Allotment Boundary

Produced by the Roswell Field Office
GIS Intern on July 25, 2003.

His personality is one of the Essence of Love. He speaks not with a harsh, commanding voice, but with a gentle, convincing inner calm. He is a man whose words are full of wisdom and insight, and who is prepared to listen to what others have to say. He is a man of great faith, and he is a man of great love. He is a man who is truly a man of God. He is a man who is truly a man of the world.